

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 91-129

NPDES PERMIT NO. CA0038393

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

SEAFIRTH ESTATES COMPANY AND
PROPERTY OWNERS WITHIN THE SEAFIRTH ESTATES SUBDIVISION TIBURON
MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (the Board), finds that:

1. The Seafirth Estates Company applied for reissuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES) by application dated June 17, 1991. The Seafirth Estates Company, a non-profit corporation, owns and operates a wastewater collection and treatment system serving the 29 single-family homes in the Seafirth Estates subdivision. The company is governed and financed by the homeowners. The company and the homeowners are referred to hereafter as the discharger.
2. Sanitary sewers collect sewage from the 29 homes in the subdivision and transport it to the treatment plant, located at the end of Seafirth Road. Treatment consists of primary sedimentation, biological treatment using a trickling filter, followed by secondary clarification, chlorination and dechlorination. Current flows are approximately 7,000 gallons per day. Treated wastewater is discharged to San Francisco Bay via a 100-foot outfall, at 37 54' 08" Latitude and 122 28' 08" Longitude.
3. The Seafirth Estates subdivision is located on the Tiburon peninsula off Paradise Road about three miles north of Tiburon's town center (see Attachment B). The subdivision is in the Tiburon town limits but outside the boundaries of nearby sanitary districts. .
4. Another small wastewater treatment plant, run by Sanitary District No. 5 of Marin County, is located about 1/2 mile southeast of the subdivision and serves a small number of residences at Paradise Cove. Most other homes in the vicinity have individual septic systems. There have been proposals to sewer the entire eastern Tiburon peninsula at the time when several large undeveloped parcels are developed. The area would be included in Sanitary District No. 5, and the District's Paradise Cove plant would be expanded at that time. Under this scenario, the Seafirth subdivision would be connected to the consolidated sewerage system, and the Seafirth plant would close.
5. The discharger has indicated an interest in connecting Seafirth Estates to the consolidated sewerage proposal. However, a Seafirth connection is unlikely in the next

several years, and a future connection depends on several other factors. These include: (1) development of two or three of the large undeveloped parcels in the vicinity, across whose land the Seafirth force main would have to go, (2) annexation of the area to Sanitary District No. 5 of Marin County, and (3) participation by a majority of existing homes now on septic systems. The Board cannot reasonably set a schedule for connecting Seafirth Estates to a consolidated sewerage system, since the connection depends on factors beyond the discharger's control.

6. The discharger is presently governed by waste discharge requirements in Order No. 86-35, which allow discharge into San Francisco Bay.
7. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Francisco Bay.
8. The beneficial uses of San Francisco Bay in the vicinity of the outfall are:
 - a. Water contact recreation
 - b. Non contact water recreation
 - c. Commercial and sport fishing
 - d. Wildlife habitat
 - e. Preservation of habitat for rare and endangered species
 - f. Estuarine habitat
 - g. Fish Migration and spawning
 - h. Shellfish harvesting
 - i. Navigation
 - j. Industrial process and service supply
9. The Basin Plan prohibits the discharge of any wastewater which has particular characteristics of concern to beneficial uses at any point where wastewater does not receive an initial dilution of at least 10:1.
10. The California Administrative Code (Title 23, Chapter 3, Subchapter 14) requires at least a Grade II operator to supervise a municipal biofilter plant with a design flow of up to 1.0 million gallons per day. The discharger presently contracts with a Grade V operator to operate the Seafirth facility.
11. An Operation and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities and recommended operation strategies, process control monitoring and maintenance activities. In order to remain a useful and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.
12. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter three (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act) pursuant to Section 13389 of the California Water Code.

13. The Discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity for a public hearing and the opportunity to submit their written views and recommendations.
14. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

A. Discharge Prohibitions

1. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.
2. The discharge of average dry weather flows greater than 7,500 gallons per day is prohibited. Average dry weather flow shall be determined over three consecutive dry weather months each year.
3. Discharge of wastewater at any point where it does not receive a minimum initial dilution of 10:1 is prohibited.

B. Effluent limitations

1. Effluent discharged shall not exceed the following limits:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily - Maximum</u>	<u>Instantaneous</u>
<u>Maximum</u>					
a. Biochemical Oxygen Demand	mg/l	30	45	60	---
b. Total Suspended Solids	mg/l	30	45	60	---
c. Settleable Matter	ml/l-hr	0.1	---	---	0.2
d. Oil and Grease	mg/l	10	---	20	---
e. Total Chlorine Residual (1)	mg/l	---	---	---	0.0

(1) Requirement defined as below the limit of detection in standard test methods.

2. The monthly average of the biochemical oxygen demand (five-day, 20 degrees centigrade) and suspended solids values, by weight for effluent samples collected during a calendar month shall not exceed 15 percent of the monthly average of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).
3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.
4. The moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five (5) consecutive effluent samples shall not exceed 240 MPN per 100 milliliters (240 MPN/100 ml). Any single sample shall not exceed 10,000 MPN/100 ml.
5. The survival of test organisms acceptable to the Board in 96-hour bioassays of the effluent shall be a 90 percentile value of not less than 50 percent survival, based on the ten most recent consecutive samples.
6. Representative samples of the effluent shall not exceed the following limits in micrograms per liter (ug/l): (1)

<u>Constituent</u>	<u>Daily Average (2)</u>
a. Arsenic	200
b. Cadmium	30
c. Chromium(VI) (3)	110
d. Copper	200
e. Lead	56
f. Mercury	1
g. Nickel	71
h. Silver	23
i. Zinc	580
j. Cyanide	25
k. Phenols	500
l. PAHs (4)	150

(1) These limits are intended to be achieved through secondary treatment and applicable pretreatment programs.

2) Average of all flow-weighted samples collected over a 24-hour period.

(3) The Discharger may at its option meet this limit as total chromium.

(4) Polynuclear Aromatic Hydrocarbons (PAHs). This limit applies to the summation of the detected levels of the individual constituent PAHs as identified by EPA Method 610 (i.e. Total PAHs). If a discharge exceeds this limit, the concentrations of individual constituents shall be reported.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
 - a. Dissolved Oxygen 5.0 mg/l, minimum.

The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation. When natural factors cause lesser concentrations than those specified above, then the discharge shall not cause further reduction in the ambient concentration of dissolved oxygen.
 - b. Dissolved Sulfide 0.1 mg/l, maximum.
 - c. pH Variation from normal ambient pH by more than 0.5 pH units.
 - d. Un-ionized Ammonia 0.025 mg/l as N, annual median; 0.16 mg/l as N, maximum.
3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. SLUDGE HANDLING AND DISPOSAL REQUIREMENTS

1. All sludge treatment, processing, storage or disposal activities under the Discharger's control shall be in compliance with current state and federal regulations.
2. The Board may amend this Order prior to the expiration date if necessary to accommodate changes in applicable state or federal sludge regulations, or changes in the Discharger's sludge management procedures.
3. The Discharger shall notify the Board, in writing, of any significant changes in its sludge disposal practices.
4. Permanent on-site sludge storage or disposal activities are not authorized by this permit. A Report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the Discharger.
5. The treatment, processing, storage or disposal of sludge conducted by the Discharger shall not create a condition of pollution or nuisance as defined in Section 13050 (l) and (m) of the California Water Code.
6. The treatment, processing, storage or disposal of sludge by the Discharger shall not cause waste material to be discharged to, or deposited in, waters of the State.
7. Sludge storage facilities under the Discharger's control shall be operated and maintained in such a manner as to provide adequate protection from surface runoff, erosion, or other conditions which would cause drainage from the waste materials to escape from the storage facility site(s).
8. The discharge to the Discharger's sludge storage facilities of waste other than sewage sludge produced by the Discharger's wastewater treatment facility is prohibited.
9. The storage of sludge shall not cause degradation of groundwater.

E. Provisions

1. Requirements prescribed by this order supersede the requirements prescribed by Order No. 86-35. Order No. 86-35 is hereby rescinded.
2. Where concentration limitations in mg/l or ug/l are contained in this Permit, the following Mass Emission Limitations shall also apply:

(Mass Emission Limit in lbs/day) = (Concentration Limit in mg/l) x (Actual Flow in million gallons per day averaged over the time interval to which the limit applies).

3. The Discharger shall comply with all sections of this Order immediately upon adoption.
4. The Discharger shall comply with the attached Self-Monitoring Program. The Board's Executive Officer may make minor amendments to this Self-Monitoring Program pursuant to federal regulations (40 CFR 122.63).
5. The Discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements" dated December, 1986 including section A.18 concerning bypasses.
6. In reviewing compliance with the limits of Effluent Limitations B.2 of this Order, the Board will take special note of the difficulties encountered in achieving compliance during periods of high wet weather flow.
7. The Discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year.
8. The Discharger shall review and update by December 31, annually, its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the Discharger has failed to develop and/or implement a contingency plan will be the basis for considering such a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
9. This Order expires September 18, 1996. The Discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
10. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective ten days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on September 18, 1991.



STEVEN R. RITCHIE
Executive Officer

Attachments:

Standard Provisions and Reporting
Requirements, December 1986
Self-Monitoring Program
Resolution No. 74-10

[File No. 2159.5051]

[Originator/LCF]

[Reviewer/RJC]

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

SEAFIRTH ESTATES

MARIN COUNTY

NPDES PERMIT NO. CA0038393

ORDER NO. 91-129

CONSISTS OF

PART_A, dated December 1986

AND

PART_B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

<u>Station</u>	<u>Description</u>
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A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.
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B. EFFLUENT

<u>Station</u>	<u>Description</u>
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E-001	At a point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same location as E-001-D.)
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E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.
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D. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
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P-1-n'	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showing the location of these stations will accompany the initial reports).
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E. OVERFLOWS AND BYPASSES

<u>Station</u>	<u>Description</u>
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0-1-n'	Bypass or overflows from manholes, thru pump stations or collection system.
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Note: Bypass shall be reported to this Regional Board by telephone immediately after occurrence.

A written report shall be filed with the Board within 5 working days which shall contain information such as quantity involved, location, course of bypass, nature of affects, and corrective measures taken.

II. SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS

- A. The schedule of sampling, measurements and analysis shall be that given as TABLE I.

III. REPORTING REQUIREMENTS

- A. Self-Monitoring Reports for each quarter shall be submitted quarterly, to be received no later than the 15th day of the following month. The required contents of these reports are specified in section G.4 of Part A.
- B. An annual report covering the previous calendar year shall be submitted to the Regional Board by January 30 of each year. The required contents of the annual report are specified in section G.5 of Part A.
- C. Any overflow, bypass or other significant non-compliance incident that may endanger health or the environment shall be reported according to sections G.1 and G.2 of Part A.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board No. 91-129.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.


STEVEN R. RITCHIE
Executive Officer

Effective Date 9/10/91

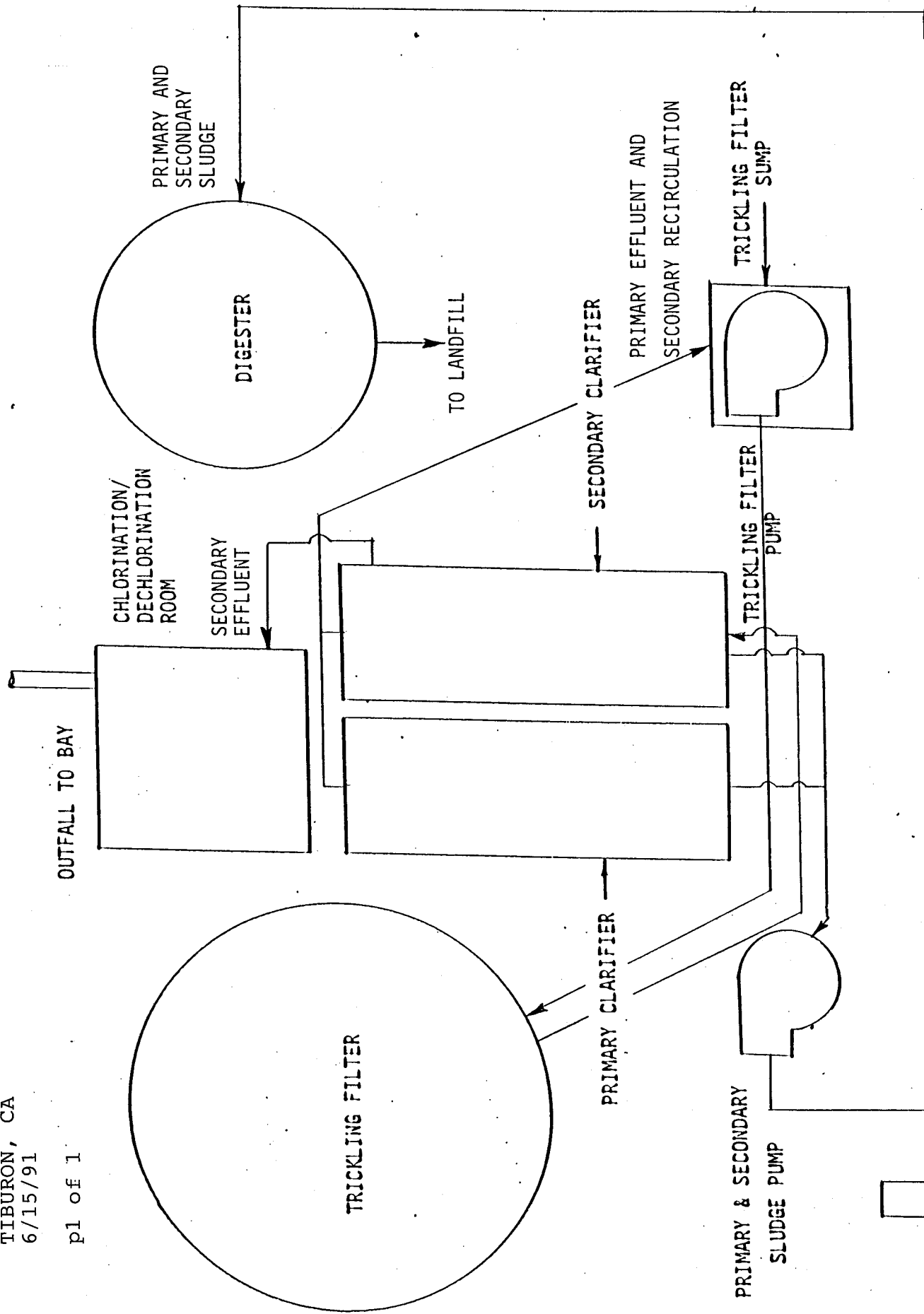
PART B

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

SAMPLING STATION		A-001												E-001											
TYPE OF SAMPLE																									
Flow Rate (mgd)																									
BOD, 5-day, 20°C (mg/l & kg/day)																									
Total Suspended Solids (mg/l & kg/day)																									
Settleable Solids (ml/l-hr)																									
Oil and Grease (mg/l & kg/day)																									
Chlorine Residual, & Dosage (mg/l & kg/day)																									
Coliform, Total (MPN/100 ml)																									
Toxicity, 96-hr Bioassay (% Survival)																									
Turbidity (NTU)																									
pH (units)																									
Temperature (°C)																									
Dissolved Oxygen (mg/l & % Saturation)																									
Sulfides, Total & D'solved (if DO < 2.0 mg/l) (mg/l)																									
Arsenic (mg/l or ug/l, & kg/day)																									
Cadmium (mg/l or ug/l, & kg/day)																									
Chromium (mg/l or ug/l, & kg/day)																									
Copper (mg/l or ug/l, & kg/day)																									
Lead (mg/l or ug/l, & kg/day)																									
Mercury (mg/l or ug/l, & kg/day)																									
Nickel (mg/l or ug/l, & kg/day)																									
Selenium (mg/l or ug/l, & kg/day)																									
Silver (mg/l or ug/l, & kg/day)																									
Zinc (mg/l or ug/l, & kg/day)																									
Cyanide (mg/l or ug/l, & kg/day)																									

M= monthly Q= quarterly



SEAFIRTH ESTATES COMPANY, INC.
WASTEWATER TREATMENT PLANT SCHEMATIC

MOTOR CONTROL CENTER

SCALE: 1/4" = 1.0"



FIGURE 2. PROJECT VICINITY